

88056480

OFFICE COPY
DO NOT REMOVE

NOV 23 1981

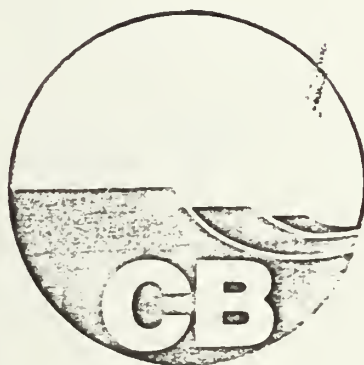
SOCIOECONOMIC MONITORING REPORT

NUMBER 12
THIRD QUARTER REPORT
1981

RECEIVED

NOV 18 1981

OFFICE OF
AREA OIL SHALE SUPERVISOR
U.S. G.S.



Cathedral Bluffs Shale Oil Company

OCCIDENTAL OIL SHALE INC., OPERATING PARTNER
TENNECO SHALE OIL COMPANY, PARTNER

TN
809
.064
C3744
no. 12
C.C.

03-020-2651

1288056490

BLM Library
D-553A, Building 50
Denver Federal Center
P. O. Box 25047
Denver, CO 80225-0047

TN
859
C64
C3744
110.12
C.2

SOCIOECONOMIC MONITORING REPORT

Number 12

October, 1981

Prepared By:

CATHEDRAL BLUFFS SHALE OIL COMPANY
Community Relations Office
1214 Access Road, Suite 103
Rifle, Colorado 81650
(303) 625-5101

STANDARD
OF THE
NATIONAL BUREAU OF STANDARDS
FOR THE
UNITED STATES OF AMERICA
1901-1902

INTRODUCTION

In mid-1978, the Cathedral Bluffs Shale Oil Project began providing information about its work force and socioeconomic data about project area communities in northwest Colorado. This is the twelfth monitoring report in the series.

The information on the work force presented in this report reflects current conditions as of October 1981. The work force data is collected from a questionnaire completed by employees when they start work at the Cathedral Bluffs site and updated periodically. Completed surveys are available from 94 percent of the current work force. The surveys are coded and analyzed through a computerized data base management system.

As of October 1, 1981, the Cathedral Bluffs site employed about 670 individuals. This shows an increase of 120 employees since the July monitoring report. A total of 111, or 17 percent, of the employees at the site are permanent employees, while the other 559, or 83 percent, hold contract or temporary jobs at the site.

The CB Project is currently pursuing a schedule which calls for an initial quarter-scale producing module by the mid-1980's. The quarter-scale module is expected to produce about 21,500 barrels per day (BPD) of shale oil, and, once it is completed, development will continue to a full scale operation of 80,000 to 90,000 BPD by the early 1990's.

Long range employment projections based on the revised project schedule are currently being developed. They will be available in the next quarterly monitoring report (January, 1982). CB employment will decrease over the winter and increase again next spring and summer, so that an employment level of about 550 is expected at the end of 1982.

HOUSING

Location

The percentage of employees now residing in Meeker again increased significantly over the last quarter. As shown in Table I, the percentage of employees residing in Meeker has risen to 26 percent of the total, while the percentage living in Rifle has decreased to 52 percent. The principle reason for the shift in residential distribution between the two communities is that new employees working for Brown & Root and TIC, two major contractors on the Project, are more inclined to reside in Meeker.

TABLE I
PLACE OF RESIDENCE

	Percentage of Employees Surveyed Residing There October 1980 (N=409)	Percentage of Employees Surveyed Residing There July 1981 (N=525)	Percentage of Employees Surveyed Residing There October 1981 (N=631)
Rifle	61	58	52
Meeker	14	18	26
Silt	6	7	6
Grand Junction Area	7	5	5
Glenwood Springs	2	2	2
New Castle	2	2	2
Parachute	2	2	2
Rangely	0	0	0
Other Western Slope	1	3	3
Piceance Creek	0	0	0
Other Colorado	1	1	1
Outside Colorado	1	0	0
Unknown	3	2	1
TOTAL	100	100	100

The residential distribution for permanent employees only is displayed in Table II. This distribution indicates a higher percentage of persons residing in Rifle, and in the immediate project vicinity in general, than the distribution for the work force as a whole.

TABLE II
PLACE OF RESIDENCE
(Permanent Employees Only)

	Percentage of Workers Surveyed Residing There October 1981 N=111
Rifle	61
Meeker	18
Silt	7
Grand Junction Area	4
Glenwood Springs	0
New Castle	3
Parachute	4
Rangely	0
Other West Slope	3
Piceance Creek	0
TOTAL	100

About 8 percent of current employees commute to the project area on a weekly basis, while 92 percent reside locally on a full time basis. Glenwood Springs has the highest percentage of weekly commuters among employees living there, while Silt has the lowest percentage. Table III indicates the percentage of weekly

commuters among the entire work force, and among those who reside in the communities of Rifle, Meeker, Silt, Grand Junction, and Glenwood Springs.

TABLE III
PERCENTAGE OF EMPLOYEES RESIDING IN COMMUNITIES
FULL TIME OR WEEK DAYS ONLY
OCTOBER 1981

Community	Percent Residing In Community Full Time	Percent Residing In Community Week Days Only	
Rifle	92	8	100%
Meeker	90	10	100%
Silt	97	3	100%
Grand Junction	91	9	100%
Glenwood Springs	77	23	100%
TOTAL WORK FORCE	92	8	100%

Length of Residence

Even though total employment increased by 22 percent over the last quarter, the percentage of employees who have lived in the local area less than one year increased only two percent. This data verifies that a high percentage of new hires over the last quarter have been residents for at least one year. Currently, 61 percent of all employees have resided locally for more than one year, while 39 percent have resided locally for less than one year, as shown in Table IV. This is a higher distribution of long term residents than one year ago. Meeker has a higher percentage of short term residents because of the recent influx of employees to that community.

TABLE IV

LENGTH OF RESIDENCE

October 1980 and October 1981

Community	Percent of Short* Term Residents October 1980	Percent of Long** Term Residents October 1980	Percent of Short* Term Residents October 1981	Percent of Long** Term Residents October 1981
Rifle	55	45	35	65
Meeker	52	48	45	55
Silt	25	75	27	73
Grand Junction	24	76	28	72
Parachute	20	80	45	55
Total Work Force	49	51	39	61

* Short term is defined as those residing in their current home less than one year.

** Long term is defined as those residing in their current home more than one year.

Type of Residence

CB employees live in a variety of types of housing units, as shown in Table V. The largest percentage of the total work force resides in single family houses. The number of employees residing in mobile homes has increased recently, particularly in the communities of Silt and Parachute.

TABLE V
TYPE OF RESIDENCE OCCUPIED BY CB EMPLOYEES
OCTOBER 1981

Community	Own House	Rent House	Own Mobile Home	Rent Mobile Home	Apartment and Townhouse	RV	Motel	Living With Parents
Rifle	21	15	19	6	29	4	5	1
Meeker	20	16	9	9	33	10	2	1
Silt	28	31	11	14	8	8	0	0
Parachute	36	27	9	28	0	0	0	0
Grand Junction	44	19	15	8	7	7	0	0
Total Work Force	24	17	15	8	26	6	3	1

Residential Preference

When asked what type of housing employees preferred living in, 76 percent indicated they would prefer living in single family houses. Table VI shows the housing preferences for those workers who expressed a housing preference. These percentages have remained fairly constant over the last year.

TABLE VI

TYPE OF RESIDENCE PREFERRED BY CB EMPLOYEES
SHOWING HOUSING PREFERENCE
OCTOBER 1981

Community	House	Mobile Home	Apartment
Rifle	74	12	14
Meeker	77	13	10
Silt	84	13	3
Parachute	100	0	0
Grand Junction	79	17	4
Total Work Force	76	11	13

When the response to the question on housing is compared to actual types of housing in which workers live, most of those living in motels, recreational vehicles, and townhouses would prefer some other type of housing. Table VII indicates what percentage of employees residing in each housing type desire a change in housing type, and in which type of housing they would prefer to reside.

Cost

The median monthly cost of housing to employees has increased for all types of housing except rented houses since July. The most significant increases have been for owned houses and apartments. Housing costs have increased substantially from one year ago. The median cost is higher for houses and mobile homes in Rifle than in Meeker, but lower for other types of housing. Table VIII shows median cost for various types of housing in October 1981 and compares that cost with costs reported in October 1980 and July 1981.

TABLE VII

PERCENTAGE OF EMPLOYEES LIVING IN VARIOUS
HOUSING TYPES AND DESIRING CHANGE
OCTOBER 1981

Housing Type	Total Percentage Desiring Changes	Percentage Preferring Apartments	Percentage Preferring Houses	Percentage Preferring Mobile Homes
Apartment	67	*	64	3
House	6	4	*	2
Mobile Home	57	6	50	*
Motel	83	13	47	23
RV	89	3	74	11
Townhouse	83	23	60	0
Total	44	5	35	3

TABLE VIII

MEDIAN MONTHLY COST OF HOUSING TO CB EMPLOYEES

Type	Median Cost Total Work Force October 1980	Median Cost Total Work Force July 1981	Median Cost Total Work Force October 1981	Median Cost Rifle October 1981	Median Cost Meeker October 1981
Own House	\$400	\$415	\$473	\$537	\$460
Rent House	\$225	\$300	\$300	\$300	\$250
Mobile Home	\$165	\$210	\$250	\$250	\$150
Apartment	\$265	\$277	\$322	\$300	\$350
RV	\$ 50	\$135	\$140	\$100	\$140
Townhouse	\$350	\$350	\$385	\$350	\$425

CB Residential Property

Construction has begun on drainage system improvements and on a recreation vehicle storage area in the King's Crown Mobile Home Park. The expansion of King's Crown, from the current 103 sites to a total of 250 mobile home sites, is anticipated for 1982.

Preliminary plans for development of the 113-acre Condon property, owned by CB, will be submitted to the City of Rifle in November. Those plans call for the dedication of an 11-acre parcel of the property to Rifle. The parcel is regarded by the City as a prime site for the location of a new municipal, library, and human services building.

AGE, SEX, MARITAL STATUS, AND FAMILY SIZE

Age

The median age of the total work force is 30 years. The median age of employees classified as permanent is 33 years, while those classified as construction or temporary employees have a median age of 29 years. The median age of workers in various communities is shown in Table IX.

TABLE IX
MEDIAN AGE OF EMPLOYEES
OCTOBER 1981

Community	Median Age
Rifle	29
Meeker	30
Silt	33
Grand Junction Area	28
Parachute	38
Total Work Force	30

Sex

Eighty-nine percent of employees are male, while eleven percent are female. This distribution has remained constant over the past year.

Marital Status

The percent of married employees living with their families and the percent of single employees has increased, while the percent of married employees living apart from their families has decreased significantly over the last quarter. Parachute and Silt have the highest percentage of married workers with families present. Table X shows the percentage of workers by community according to marital status. Among employees classified as permanent, 70 percent are married and living with families full time, 6 percent are married but live apart from their families, and 24 percent are single.

TABLE X
MARITAL STATUS OF EMPLOYEES
OCTOBER 1981

Community	Percent Married and Living With Family	Percent Married But Not Living With Family Full Time	Percent Single
Rifle	49	10	41
Meeker	55	7	38
Silt	71	6	23
Grand Junction Area	64	0	36
Parachute	91	9	0
Total Work Force	53	9	38

Family Size

The average family size of all married employees is 3.1 persons.

Average family size among married permanent employees is 3.0 persons.

Table XI shows average family size of all married employees by community as they were reported in October 1980 and October 1981. In most communities, average family size among married employees has increased from one year ago. No apparent reason exists for this increase in family size.

TABLE XI

AVERAGE FAMILY SIZE OF MARRIED EMPLOYEES* BY COMMUNITY

Community	October 1980	October 1981
Rifle	2.8	3.1
Meeker	2.4	3.2
Silt	3.0	3.6
Grand Junction Area	2.8	2.7
Parachute	3.7	2.9
Total Work Force	2.7	3.1

*These figures include workers who do not have families living with them full time.

Number of Children

Currently, employees have 174 preschool aged children, 187 elementary aged children, 67 junior high and 57 high school aged children living with them in the project area. This is an increase of 73 total children from July 1981. Table XII shows the number of children residing with employees by community.

1. Introduction

The purpose of this study is to investigate the effects of various factors on the performance of a system.

The study is organized as follows. Section 2 describes the system architecture and the experimental setup. Section 3 presents the results of the experiments, and Section 4 discusses the conclusions and future work.

2. System Architecture

The system architecture is shown in Figure 1. It consists of a client and a server. The client sends requests to the server, which processes them and returns the results.

The client is implemented in Java and the server is implemented in C++. The client and server are connected via a network.

The system is designed to be scalable and flexible. It can handle a large number of requests and can be easily modified to support new features.

The system is tested using a variety of test cases. The results of the tests are shown in Table 1.

The results show that the system is able to handle a large number of requests and that it is flexible enough to support new features.

The system is also able to handle a large number of requests and is flexible enough to support new features.

The system is able to handle a large number of requests and is flexible enough to support new features.

TABLE XII
NUMBER OF SCHOOL AGE CHILDREN LIVING WITH CB EMPLOYEES
OCTOBER 1981

Community	Preschool	Elementary	Junior	Senior
Rifle	89	90	32	23
Meeker	50	48	15	10
Silt	17	24	7	10
Grand Junction	10	12	1	4
Parachute	0	1	3	2
Total Work Force*	174	187	67	57

*Total includes children living in communities not mentioned above.

A few employees who reside in Rifle and Meeker indicated they are planning on moving their families into the area in the near future. Employees residing in Rifle indicated they will move in two preschool, two elementary children, and one junior high school child. Employees residing in Meeker plan to move one preschool child, three junior high school children, and three high school children to town in the near future.

RECREATIONAL ACTIVITIES

Fishing, hunting, skiing, and camping activities continue to be the most popular recreational activities of the work force. Table XIII shows the percentage of employees who indicated a preference for the most popular recreational activities.

TABLE XIII
RECREATIONAL PREFERENCE OF EMPLOYEES SURVEYED

Activity	Percent Responding* of Total Work Force	Percent Responding* in Meeker	Percent Responding* in Rifle
Fishing	36	37	38
Hunting	33	37	32
Skiing	12	11	14
Camping	9	8	10
Swimming	5	6	5
Golf	5	4	4
Motorcycling	3	2	3
Horseback Riding	3	3	3
Softball	3	2	3
All Sports	5	4	6

*Percentage does not total to 100 due to multiple reasons.

CHILD CARE

Of the total CB work force, 95 percent answered that they had adequate child care facilities available to them.

Form 1279-3
(June 1984)

BORROWED

IN 838.1

2-5-84

6001006

DATE LOANED	BORROWER

USDI - ELM

